ELECTRICAL COMMUNICATION INDEX, VOLUME 57 (1982)

Subject Index

	Number	Page
Adaptive Beam Forming for Radar, P. Barton and P. K. Blair	1	62
Cables, Development of Flame Retardant, Low Aggressivity, J. R. Bury, B. A. Cranfield, and W. E. Simpson	2	83
CHILL, Programming Environment for the ITT 1240, T. Haque	4	326
Chipstrate Interconnection Substrates for Advanced Electronic Systems, M. El Refaie	2	142
Coaxial Cable System, 18 MHz, C. Gonzalez Madroño and K. Kocher	3	236
Coaxial Line Equipment for 34 to 565 Mbit s^{-1}, A. Hemsworth, A. Jessop, W. Kolb, P. Norman, A. Norz, and G. Windus	3	243
Communication Support for Program Development, ITT/NET, S. R. Kimbleton and P. S.-C. Wang	4	320
Computerized Vision in Manufacturing Industry, I. H. Smith	2	116
Computer Programs, Quality Assurance for, R. H. Dunn and R. S. Ullman	4	301
Coordination System Technology as the Base for a Programming Environment, A. W. Holt, H. R. Ramsey, and J. D. Grimes	4	307
Data Modem Evolution, H. Nyman, F. Salcedo, J. T. L. Sharpe, and C. W. Tarry	3	187
Design of Optical Fiber Cables, M. M. Ramsay, J. N. Russell, and J. G. Titchmarsh	2	96
Development of Flame Retardant, Low Aggressivity Cables, J. R. Bury, B. A. Cranfield, and W. E. Simpson	2	83
Developments in Crosslinked Polyethylene Insulation for Power Cables, L. A. Dissado, J. C. Fothergill, and S. V. Wolfe	2	87
Dielectrics for Submarine Cables, D. L. Walters	2	91
Digital Multiplexers for Rates from 2 to 565 Mbit s^{-1}, A. Barbetta and M. Natens	3	251
Digital Radio Relay System for Transmission at 140 Mbit s^{-1}, A. Berndt and H.-G. Gerst	3	222
Digital Radio Relay System for Regional Networks, H. D. Brudy and K. D. Hopf	3	265
Digital Radio Relay System for Transmission at 34 Mbit s^{-1}, F. Frey	3	215
Digital Signal Processing in Transmission Terminals, P. J. Elce and L. D. Humphrey	3	195
Display Terminals, Human Factors and the Design of, D. J. Wheatley	1	11
Dry Removal of Plastic Encapsulants by Plasma Ashing, M. E. Holycross and E. J. Saccocio	2	157
Dynamic Program Modification, J. A. De Man and M. A. E. van Rumste	4	339
Education, Interactive Learning Environment for Programming, H. F. Moody and F. Wilson	4	315
Electro-Optical Applications, Transparent Ceramics for, A. Gutu-Nelle, H. Schichl, and J. Springer	2	171
Fiber Optic Sensors, G. D. Pitt	2	102
Hall Effect Devices for Relay and Other Applications, A. H. Marchant and G. D. Pitt	2	107
Human Factors and Intelligent Products, I. Cole, B. Drake, and J. Harvey	1	18
Human Factors and the Design of Display Terminals, D. J. Wheatley	1	11
Hybrid Circuits, Non-Noble Metal Inks for Thick Film, M. Hinoul, W. Vermeirsch, and R. Vlaeminck	2	137
Industrial Design and Human Factors		
Human Factors and Intelligent Products, I. Cole, B. Drake, and J. Harvey	1	18
Human Factors and the Design of Display Terminals, D. J. Wheatley	1	11
Overview	1	2
The Role of Industrial Design, P. J. Leslie	1	3
Intelligent Products, Human Factors and, I. Cole, B. Drake, and J. Harvey	1	18
Interactive Learning Environment for Programming Education, H. F. Moody and F. Wilson	4	315
Isolation Techniques for Very Large Scale Integration, D. Beernaert, G. Schols, and P. Van Iseghem	2	161
ITT/NET Communication Support for Program Development, S. R. Kimbleton and P. S.-C. Wang	4	320
ITT 1240 Programming Planning for Multilocation Development, D. A. Lawson	4	284
ITT 1240, CHILL Programming Environment for the, T. Haque	4	326
Library, Project, R. Raible	4	334
Liquid Crystal Displays, P. W. Ross	2	121
Low Temperature Soldering, S. Smernos and R. Strauss	2	148
LSI and VLSI Fractured Cross Sections, Scanning Electron Microscope Examination of, J. Knecht and M. Macari	2	167
Materials Technology		
Chipstrate Interconnection Substrates for Advanced Electronic Systems, M. El Refaie	2	142
Computerized Vision in Manufacturing Industry, I. H. Smith	2	116
Design of Optical Fiber Cables, M. M. Ramsay, J. N. Russell, and J. G. Titchmarsh	2	96
Development of Flame Retardant, Low Aggressivity Cables, J. R. Bury, B. A. Cranfield, and W. E. Simpson	2	83
Developments in Crosslinked Polyethylene Insulation for Power Cables, L. A. Dissado, J. C. Fothergill, and S. V. Wolfe	2	87
Dielectrics for Submarine Cables, D. L. Walters	2	91

	Number	Page
Dry Removal of Plastic Encapsulants by Plasma Ashing, M. E. Holycross and E. J. Saccocio	2	157
Fiber Optic Sensors, G. D. Pitt	2	102
Hall Effect Devices for Relay and Other Applications, A. H. Marchant and G. D. Pitt	2	107
Isolation Techniques for Very Large Scale Integration, D. Beernaert, G. Schols, and P. Van Iseghem	2	161
Liquid Crystal Displays, P. W. Ross	2	121
Low Temperature Soldering, S. Smernos and R. Strauss	2	148
Non-Noble Metal Inks for Thick Film Hybrid Circuits, M. Hinoul, W. Vermeirsch, and R. Vlaeminck	2	137
Overview	2	82
Plastic-Encapsulated Semiconductor Components for Telecommunication Systems, D. Stroehle	2	152
Polymer Conductors: Materials and Process Applications, G. L. Ashcroft	2	132
Scanning Electron Microscope Examination of LSI and VLSI Fractured Cross Sections, J. Knecht and M. Macari	2	167
Stress Relaxation Tests on Conductor and Spring Materials, W. R. George	2	112
Thick Film Materials and Reliability, P. W. Graves	2	127
Transparent Ceramics for Electro-Optical Applications, A. Gutu-Nelle, H. Schichl, and J. Springer	2	171
Medium-Capacity Digital Radio Relay System, P. G. Debois	3	208
Millimeter-Wave Radar Technology, D. zur Heiden	1	70
Multilocation Development, ITT 1240 Programming Planning for, D. A. Lawson	4	284
New Radar Techniques for Tracking Targets at Low Elevations, P. Barton and W. D. Waddoup	1	44
Non-Noble Metal Inks for Thick Film Hybrid Circuits, M. Hinoul, W. Vermeirsch, and R. Vlaeminck	2	137
Optical System, 140 Mbit s^{-1} Multimode, D. S. Thomas	3	201
Overview (Industrial Design and Human Factors and Radar)	1	2
Overview (Materials Technology)	2	82
Overview (Programming Technology)	4	274
Overview (Transmission)	3	178
Planning and Implementation of PCM Systems on Symmetric Pair Cables, R. J. Catchpole, P. J. Dyke, and E. S. Usher	3	180
Plasma Ashing, Dry Removal of Plastic Encapsulants by, M. E. Holycross and E. J. Saccocio	2	157
Plastic-Encapsulated Semiconductor Components for Telecommunication Systems, D. Stroehle	2	152
Polymer Conductors: Materials and Process Applications, G. L. Ashcroft	2	132
Power Cables, Developments in Crosslinked Polyethylene Insulation for, L. A. Dissado, J. C. Fothergill, and S. V. Wolfe	2	87
Programming		
CHILL Programming Environment for the ITT 1240, T. Haque	4	326
Coordination System Technology as the Base for a Programming Environment, A. W. Holt, H. R. Ramsey, and J. D. Grimes	4	307
Dynamic Program Modification, J. A. De Man and M. E. van Rumste	4	339
Interactive Learning Environment for Programming Education, H. F. Moody and F. Wilson	4	315
ITT/NET Communication Support for Program Development, S. R. Kimbleton and P. S.-C. Wang	4	320
ITT 1240 Programming Planning for Multilocation Development, D. A. Lawson	4	284
Overview	4	274
Prevention and Removal of Programming Defects, T. C. Jones	4	295
Programming Support: Tools of the Trade, M. P. Saward	4	289
Programming in ITT, E. R. Kidd	4	276
Project Library, R. Raible	4	334
Quality Assurance for Computer Programs, R. H. Dunn and R. S. Ullman	4	301
Prevention and Removal of Programming Defects, T. C. Jones	4	295
Programming Environment, Coordination System Technology as the Base for a, A. W. Holt, H. R. Ramsey, and J. D. Grimes	4	307
Programming Support: Tools of the Trade, M. P. Saward	4	289
Programming in ITT, E. R. Kidd	4	276
Project Library, R. Raible	4	334
Pulse Code Modulation System, 10-Channel, T. Henriksen, O. Kvingedal, and B. Solberg	3	259
Quality Assurance for Computer Programs, R. H. Dunn and R. S. Ullman	4	301
Radar		
Adaptive Beam Forming for Radar, P. Barton and P. K. Blair	1	62
Millimeter-Wave Radar Technology, D. zur Heiden	1	70
New Radar Techniques for Tracking Targets at Low Elevations, P. Barton and W. D. Waddoup	1	44
Overview	1	2
Radar Technology in ITT, R. Palmer	1	26
Stentor Long Range Ground Surveillance Radar, P. Stoll	1	32
Tactical Three-Dimensional Air Surveillance Radar, G. Pfister	1	51
Technology for Future Mobile Ground Surveillance Radars, G. Tessmar	1	37

	Number	Page
Radar Technology in ITT, R. Palmer	1	26
Radio Relay Systems		
Digital Radio Relay System for Regional Networks H. D. Brudy and K. D. Hopf	3	265
Digital Radio Relay Systems for Transmission at 34 Mbit s^{-1}, F. Frey	3	215
Digital Radio Relay System for Transmission at 140 Mbit s^{-1}, A. Berndt and H.-G. Gerst	3	222
Medium-Capacity Digital Radio Relay System, P. G. Debois	3	208
Scanning Electron Microscope Examination of LSI and VLSI Fractured Cross Sections, J. Knecht and M. Macari	2	167
Sensors, Fiber Optic, G. D. Pitt	2	102
Signal Processing in Transmission Terminals, Digital, P. J. Elce and L. D. Humphrey	3	195
Soldering, Low Temperature, S. Smernos and R. Strauss	2	148
Statistical Time Division Multiplexer for Data Networks, A. Barbetta and S. R. Treves	3	228
Stentor Long Range Ground Surveillance Radar, P. Stoll	1	32
Stress Relaxation Tests on Conductor and Spring Materials, W. R. George	2	112
Submarine Cables, Dielectrics for, D. L. Walters	2	91
Tactical Three-Dimensional Air Surveillance Radar, G. Pfister	1	51
Technology for Future Mobile Ground Surveillance Radars, G. Tessmar	1	37
The Role of Industrial Design, P. J. Leslie	1	3
Thick Film Materials and Reliability, P. W. Graves	2	127
Time Division Multiplexer, Statistical, A. Barbetta and S. R. Treves	3	228
Transmission		
Coaxial Line Equipment for 34 to 565 Mbit s^{-1}, A. Hemswoth, A. Jessop, W. Kolb, P. Norman, A. Norz, and G. Windus	3	243
Data Modem Evolution, H. Nyman, F. Salcedo, J. T. L. Sharpe, and C. W. Tarry	3	187
Digital Multiplexers for Rates from 2 to 565 Mbit s^{-1}, A. Barbetta and M. Natens	3	251
Digital Radio Relay Systems for Transmission at 34 Mbit s^{-1}, F. Frey	3	215
Digital Radio Relay System for Transmission at 140 Mbit s^{-1}, A. Berndt and H.-G. Gerst	3	222
Digital Radio Relay System for Regional Networks, H. D. Brudy and K. D. Hopf	3	265
Digital Signal Processing in Transmission Terminals, P. J. Elce and L. D. Humphrey	3	195
Medium-Capacity Digital Radio Relay System, P. G. Debois	3	208
Overview	3	178
Planning and Implementation of PCM Systems on Symmetric Pair Cables, R. J. Catchpole, P. J. Dyke, and E. S. Usher	3	180
Statistical Time Division Multiplexer, A. Barbetta and S. R. Treves	3	228
10-Channel Pulse Code Modulation System, T. Henriksen, O. Kvingedal, and B. Solberg	3	259
140 Mbit s^{-1} Multimode Optical System, D. S. Thomas	3	201
18 MHz Coaxial Cable System, C. Gonzalez Madroño and K. Kocher	3	236
Transparent Ceramics for Electro-Optical Applications, A. Gutu-Nelle, H. Schichl, and J. Springer	2	171
Very Large Scale Integration, Isolation Techniques for, D. Beernaert, G. Schols, and P. Van Iseghem	2	161
Vision in Manufacturing Industry, Computerized, I. H. Smith	2	116
10-Channel Pulse Code Modulation System, T. Henriksen, O. Kvingedal, and B. Solberg	3	259
140 Mbit s^{-1} Multimode Optical System, D. S. Thomas	3	201
18 MHz Coaxial Cable System, C. Gonzalez Madroño and K. Kocher	3	236

ELECTRICAL COMMUNICATION INDEX, VOLUME 57 (1982)

Author Index

	Number	Page
Ashcroft, G. L., Polymer Conductors: Materials and Process Applications	2	132
Barbetta, A., and Natens, M., Digital Multiplexers for Rates from 2 to 565 Mbit s^{-1}	3	251
Barbetta, A., and Treves, S. R., Statistical Time Division Multiplexer	3	228
Barton, P., and Blair, P. K., Adaptive Beam Forming for Radar	1	62
Barton, P., and Waddoup, W. D., New Radar Techniques for Tracking Targets at Low Elevations	1	44
Beernaert, D., Schols, G., and Van Iseghem, P., Isolation Techniques for Very Large Scale Integration	2	161
Berndt, A., and Gerst, H.-G., Digital Radio Relay System for Transmission at 140 Mbit s^{-1}	3	222
Blair, P. K., *see* Barton, P.		
Brudy, H. D., and Hopf, K. D., Digital Radio Relay System for Regional Networks	3	265
Bury, J. R., Cranfield B. A., and Simpson, W. E., Development of Flame Retardant, Low Aggressivity Cables	2	83
Catchpole, R. J., Dyke, P. J., and Usher, E. S., Planning and Implementation of PCM Systems on Symmetric Pair Cables	3	180
Cole, I., Drake, B., and Harvey, J., Human Factors and Intelligent Products	1	18
Cranfield, B. A., *see* Bury, J. R.		
Debois, P. G., Medium-Capacity Digital Radio Relay System	3	208
De Man, J. A., Dynamic Program Modification	4	339
Dissado, L. A., Fothergill, J. C., and Wolfe, S. V., Developments in Crosslinked Polyethylene Insulation for Power Cables	2	87
Drake, B., *see* Cole, I.		
Dunn, R. H., and Ullman, R. S., Quality Assurance for Computer Programs	4	301
Dyke, P. J., *see* Catchpole, R. J.		
El Refaie, M., Chipstrate Interconnection Substrates for Advanced Electronic Systems	2	142
Elce, P. J., and Humphrey, L. D., Digital Signal Processing in Transmission Terminals	3	195
Fothergill, J. C., *see* Dissado, L. A.		
Frey, F., Digital Radio Relay Systems for Transmission at 34 Mbit s^{-1}	3	215
George, W. R., Stress Relaxation Tests on Conductor and Spring Materials	2	112
Gerst, H.-G., *see* Berndt, A.		
Gonzalez Madroño, C., and Kocher, K., 18 MHz Coaxial Cable System	3	236
Graves P. W., Thick Film Materials and Reliability	2	127
Grimes, J. D., Holt, A. W., and Ramsey, H. R., Coordination System Technology as the Base for a Programming Environment	4	307
Gutu-Nelle, A., Schichl, H., and Springer, J., Transparent Ceramics for Electro-Optical Applications	2	171
Haque, T., CHILL Programming Environment for the ITT 1240	4	326
Harvey, J., *see* Cole, I.		
Hemsworth, A., Jessop, A., Kolb, W., Norman, P., Norz, A., and Windus, G., Coaxial Line Equipment for 34 to 565 Mbit s^{-1}	3	243
Henriksen, T., Kvingedal, O., and Solberg, B., 10-Channel Pulse Code Modulation System	3	259
Hinoul, M., Vermeirsch, W., and Vlaeminck, R., Non-Noble Metal Inks for Thick Film Hybrid Circuits	2	137
Holt, A. W., *see* Grimes, J. D.		
Holycross, M. E., and Saccocio, E. J., Dry Removal of Plastic Encapsulants by Plasma Ashing	2	157
Hopf, K. D., *see* Brudy, H. D.		
Humphrey, L. D., *see* Elce, P. J.		
Jessop, A., *see* Hemsworth, A.		
Jones, T. C., Prevention and Removal of Programming Defects	4	295
Kidd, E. R., Programming in ITT	4	278
Kimbleton, S. R., and Wang, P. S.-C., ITT/NET Communication Support for Program Development	4	320
Knecht, J., and Macari, M., Scanning Electron Microscope Examination of LSI and VLSI Fractured Cross Sections	2	167
Kocher, K., *see* Gonzalez Madroño, C.		
Kolb, W., *see* Hemsworth, A.		
Kvingedal, O., *see* Henriksen, T.		
Lawson, D. A., ITT 1240 Programming Planning for Multilocation Development	4	284
Leslie, P. J., The Role of Industrial Design	1	3
Macari, M., *see* Knecht, J.		
Marchant, A. H., and Pitt, G. D., Hall Effect Devices for Relay and Other Applications	2	107
Moody, H. F., and Wilson, F., Interactive Learning Environment for Programming Education	4	315
Natens, M., *see* Barbetta, A.		
Norman, P., *see* Hemsworth, A.		
Norz, A., *see* Hemsworth, A.		
Nyman, H., Salcedo, F., Sharpe, J. T. L., and Tarry, C. W., Data Modem Evolution	3	187
Palmer, R., Radar Technology in ITT	1	26
Pfister, G., Tactical Three-Dimensional Air Surveillance Radar	1	51
Pitt, G. D., Fiber Optic Sensors	2	102
Pitt, G. D., *see* Marchant, A. H.		
Raible, R., Project Library	4	334
Ramsay, M. M., Russell, J. N., and Titchmarsh, J. G., Design of Optical Fiber Cables	2	96
Ramsey, H. R., *see* Grimes, J. D.		
Ross, P. W., Liquid Crystal Displays	2	121

	Number	Page
Russell, J. N., *see* Ramsay, M. M.		
Saccocio, E. J., *see* Holycross, M. E.		
Salcedo, F., *see* Nyman, H.		
Saward, M. P., Programming Support: Tools of the Trade	4	289
Schichl, H., *see* Gutu-Nelle, A.		
Schols, G., *see* Beernaert, D.		
Sharpe, J. T. L., *see* Nyman, H.		
Simpson, W. E., *see* Bury, J. R.		
Smernos, S., and Strauss, R., Low Temperature Soldering	2	148
Smith, I. H., Computerized Vision in Manufacturing Industry	2	116
Solberg, B., *see* Henriksen, T.		
Springer, J., *see* Gutu-Nelle, A.		
Stoll, P., Stentor Long Range Ground Surveillance Radar	1	32
Strauss, R, *see* Smernos, S.		
Stroehle, D., Plastic-Encapsulated Semiconductor Components for Telecommunication Systems	2	152
Tarry, C. W., *see* Nyman, H.		
Tessmar, G., Technology for Future Mobile Ground Surveillance Radars	1	37
Thomas, D. S., 140 Mbit s^{-1} Multimode Optical System	3	201
Titchmarsh, J. G., *see* Ramsay, M. M.		
Treves, S. R., *see* Barbetta, A.		
Ullman, R. S., *see* Dunn, R. H.		
Usher, E. S., *see* Catchpole, R. J.		
Van Iseghem, P., *see* Beernaert, D.		
van Rumste, M. A. E., *see* De Man, J. A.		
Vermeirsch, W., *see* Hinoul, M.		
Vlaeminck, R., *see* Hinoul, M.		
Waddoup W. D., *see* Barton, P.		
Walters, D. L., Dielectrics for Submarine Cables	2	91
Wang, P. S.-C., *see* Kimbleton, S. R.		
Wheatley, D. J., Human Factors and the Design of Display Terminals	1	11
Wilson, F., *see* Moody, H. F.		
Windus, G., *see* Hemsworth, A.		
Wolfe, S. V., *see* Dissado, L. A.		
zur Heiden, D., Millimeter-Wave Radar Technology	1	70